



1636
PATENT
Attorney Docket No. UM-06669

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Michael D. Uhler
Serial No.: 10/002/802
Filed: 11/02/2001
Entitled: **Surface Transfection And Expression Procedure**
Group No.: 1636
Examiner: Nguyen

**INFORMATION DISCLOSURE
STATEMENT TRANSMITTAL**

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By: 

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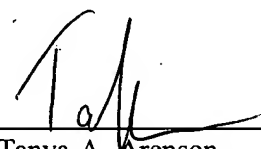
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Enclosed please find an Information Disclosure Statement and Form PTO-1449, including copies of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

A check for \$180.00 is also enclosed pursuant to 37 C.F.R. § 1.17(p) for filing this Information Disclosure Statement after three months as set forth in C.F.R. § 1.97(c).

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Dated: March 2, 2004


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INFORMATION DISCLOSURE STATEMENT

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The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

The following US patent applications are related to the present application:

- US Application No. 10/002,802 Uhler, et al., Surface Transfection And Expression Procedure; and
- US Application No. 10/123,435 Uhler, et al., Surface Transfection And Expression Procedure.

The following printed publications are referred to in the body of the specification:

- Amundson, et al., Fluorescent cDNA microarray hybridization reveals complexity and heterogeneity of cellular genotoxic stress responses, *Oncogene*, 18(24):3666 (1999);
- Bally, et al., Biological barriers to cellular delivery of lipid-based DNA carriers, *Adv Drug Deliv Rev*, 38(3):291 (1999);
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- Boynton and AL, Control of 3T3 cell proliferation by calcium, *In Vitro*, 10(12) (1974);
- Brown and Botstein, Exploring the new world of the genome with DNA microarrays, *Nat Genet*, 21(1 Suppl):33 (1999);
- Brown, et al., Induction of alkaline phosphatase in mouse L cells by overexpression of the catalytic subunit of cAMP-dependent protein kinase, *J Biol Chem*, 265(22):13181 (1990);
- Brunner, et al., Cell cycle dependence of gene transfer by lipoplex, polyplex and recombinant adenovirus, *Gene Ther*, 7(5):401 (2000);
- Cheng, Receptor ligand-facilitated gene transfer: enhancement of liposome-mediated gene transfer and expression by transferrin, *Hum Gene Ther*, 7(3):275 (1996);
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- Wagner, et al., DNA-binding transferrin conjugates as functional gene-delivery agents: synthesis by linkage of polylysine or ethidium homodimer to the transferrin carbohydrate moiety, *Bioconjug Chem*, 2(4):226 (1991);
- Watson and Akil, Gene chips and arrays revealed: a primer on their power and their uses, *Biol Psychiatry*, 45(5):533 (1999);
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- Zhu, et al., Cellular gene expression altered by human cytomegalovirus: global monitoring with oligonucleotide arrays, *Proc Natl Acad Sci U S A*, 95(24):14470 (1998); and

- Antonyak, et al., Constitutive activation of c-Jun N-terminal kinase by a mutant epidermal growth factor receptor, *J Biol Chem*, 273(5):2817 (1998);
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- US 4683195 (issued 07/28/87)Mullis, et al., Process for amplifying, detecting, and/or-cloning nucleic acid sequences;
- US 4683202 (issued 07/28/87)Mullis, et al., Process for amplifying nucleic acid sequences;
- US 4965188 (issued 10/23/90)Mullis, et al., Process for amplifying, detecting, and/or cloning nucleic acid sequences using a thermostable enzyme;
- US 5352605 (issued 10/04/94) Fraley, et al., Chimeric genes for transforming plant cells using viral promoters;
- US 5584807 (issued 12/17/96) McCabe, Gas driven gene delivery instrument;
- US 5618682 (issued 04/08/97)Scheirer, Bioluminescence measurement system;
- US 5674713 (issued 10/17/97) McElroy, et al., DNA sequences encoding coleoptera luciferase activity;
- US 5976796 (issued 11/02/99) Szalay, et al., Construction and expression of renilla luciferase and green fluorescent protein fusion genes;
- US 6074859 (issued 09/13/00) Hirokawa, et al., Mutant-type bioluminescent protein, and process for producing the mutant-type bioluminescent protein; and
- WO 9514098 (published 05/26/95) Cui Decai (CN); Chimeric Regulatory Regions and Gene Cassettes for Expression of Genes in Plants.
- WO 01/20015 (published 3/22/01) (Application No. PCT/US00/25457)

Whitehead Institute for Biomedical Research, "Reverse Transfection Method."

The following additional publications are listed in the International Search Report of the corresponding PCT application No: PCT/US01/50426, a copy of which is also included:

- Wagner, et al. (1992) Influenza virus hemagglutinin HA-2 N-terminal fusogenic peptides augment gene transfer by transferrin-polylysine-DNA complexes: toward a synthetic virus-like gene-transfer vehicle, Proc Natl Acad Sci U S A, 89(17):7934;
- Wagner, et al. (1990) Transferrin-polycation conjugates as carriers for DNA uptake into cells, Proc Natl Acad Sci U S A, 87(9):3410.

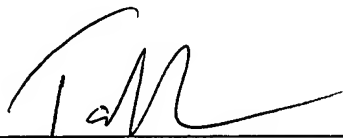
- US5837533 (issued 11/17/98) American Home Products (US), Complexes comprising a nucleic acid bound to a cationic polyamine having an endosome disruption agent;
- WO 99/51773 (published 10/14/99) Phylos Inc (US), Addressable Protein Arrays.
- WO 00/05339 (published 02/02/00) Canham Leigh Trevor (GB); SECR Defence (GB), Transferring Materials into Cells Using Porous Silicon; and
- EP0900849 (published 03/10/99) Shanghia Cancer Inst (CN), Receptor-Mediated Gene Transfer System for Targeting Tumor Gene Therapy;

The following references may be material to the examination of the above-identified application:

- U.S. 5,654,185, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,804,431, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,811,274, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,965,352 (issued 10/12/99) Stoughton and Friend, "Methods for identifying pathways of drug action."
- U.S. 5,998,136 (issued 12/07/99) Kamb, "Selection systems and methods for identifying genes and gene products involved in cell proliferation."
- U.S. 6,060,240 (issued 05/09/00) Kamb and Feldhaus, "Methods for measuring relative amounts of nucleic acids in a complex mixture and retrieval of specific sequences therefrom."
- WO 98/53103 (published 11/26/98) Chenchik et al., "Nucleic acid arrays."
- WO 99/55886 (published 11/04/99) Genova Pharmaceuticals Corp (US/US), "Function-based gene discovery."
- WO 99/58664 (published 11/18/99) McKernan et al., "Solid phase technique for selectively isolating nucleic acids."

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Dated: March 2, 2004



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Serial No.: 10/002,802

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Cover Several Sheets, If Necessary)

Applicant: Michael D. Uhler

(37 CFR § 1.98(b))

Filing Date: 11/02/2001

Group Art Unit:

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
	1	4,683,195	07/28/87	Mullis <i>et al.</i>	435	6	02/07/86
	2	4,683,202	07/28/87	Mullis <i>et al.</i>	435	91	10/25/85
	3	4,965,188	10/23/90	Mullis <i>et al.</i>	435	6	06/17/87
	4	5,352,605	10/04/94	Fraley <i>et al.</i>	435	240.4	10/28/93
	5	5,584,807	12/17/96	McCabe	604	71	01/20/95
	6	5,618,682	04/08/97	Scheirer	435	8	02/08/94
	7	5,674,713	10/17/97	McElroy <i>et al.</i>	435	69.7	06/02/95
	8	5,976,796	11/02/99	Szalay <i>et al.</i>	435	6	12/23/96
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	10	5,837,533	11/17/98	Boutin	435	320.1	07/28/94
	11	5,654,185	08/05/97	Palsson	435	235.1	06/07/97
	12	5,804,431	07/08/98	Palsson	435	235.1	03/13/97
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FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
							Yes	No
	19	WO 95/14098	5/26/95	PCT				
	20	WO 01/20015	3/22/01	PCT				
	21	WO 99/51773	10/14/99	PCT				
	22	WO 00/05339	02/02/00	PCT				
	23	0900849	3/10/99	EP				
	24	WO 98/53103	11/26/98	PCT				
	25	WO 99/55886	11/04/99	PCT				
	26	WO 99/58664	11/18/99	PCT				

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FORM PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office		Attorney Docket No.: UM-06669	Serial No.: 10/002,802
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use General Section If Necessary)				Applicant: Michael D. Uhler	
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
	27	Amundson, et al., Fluorescent cDNA microarray hybridization reveals complexity and heterogeneity of cellular genotoxic stress responses, <i>Oncogene</i> , 18(24):3666 (1999)			
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	31	Boynton and AL, Control of 3T3 cell proliferation by calcium, <i>In Vitro</i> , 10(12) (1974);			
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	47	Wagner, et al., DNA-binding transferrin conjugates as functional gene-delivery agents: synthesis by linkage of polylysine or ethidium homodimer to the transferrin carbohydrate moiety, <i>Bioconjug Chem</i> , 2(4):226 (1991);			
	48	Watson and Akil, Gene chips and arrays revealed: a primer on their power and their uses, <i>Biol Psychiatry</i> , 45(5):533 (1999);			
	49	Young, Biomedical discovery with DNA arrays, <i>Cell</i> , 102(1):9 (2000)			
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

54	Collins and Uhler, Cyclic AMP- and cyclic GMP-dependent protein kinases differ in their regulation of cyclic AMP response element-dependent gene transcription, <i>J Biol Chem</i> , 274(13):8391 (1999);
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